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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,023	01/29/2004	Terry Lee Oehrke	1185A	4721
21396	7590	09/14/2006	EXAMINER	
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			ART UNIT	PAPER NUMBER
			2155	

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Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/767,023</p>	<p>Applicant(s)</p> <p align="center">OEHRKE ET AL.</p>	
	<p>Examiner</p> <p align="center">Michael Y. Won</p>	<p>Art Unit</p> <p align="center">2155</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/29/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Application filed January 29, 2004.
2. Claims 1-53 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-4, 11, 13-14, 20-23, 25-26, 28-31, 33, 36, 38-40, 42, 45-47, and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Georgiadis et al (US 5,283,897 A).

INDEPENDENT:

As per ***claim 1***, Georgiadis teaches a method for sharing data between at least first and second redirection processors, at least said first redirection processor associated with an application server, the method comprising the steps of:

(a) collecting server statistics from the application server with said first redirection processor (see col.4, lines 24-29: "collecting processor utilization information from the computer of the system"); and

(b) sending information responsive to the server statistic from said first redirection processor to said second redirection processor (see col.4, lines 54-57: “extension would be to run the reallocation algorithm in just one transaction router and then distribute its new routing decisions to the remaining routers” and col.6, lines 38-41: “establishes connections through communication links with other workload managers residing on different machines”), wherein said second redirection processor is located at a geographically disparate location from said first redirection processor (implicit: see col.6, lines 38-41: “establishes connections through communication links with other workload managers”).

As per **claim 11**, Georgiadis teaches a network for sharing load distribution data, the network comprising:

at least first and second application servers, the first and second application servers applying, in part, substantially the same application (see Fig.1; col.5, lines 46-51: “plurality of back end computers 12, 14 and 16, which share a common database”; and col.7, lines 3-5: “consisting or more than one computer”);

a first redirection processor operatively connected to the first and second application servers, the first redirection processor operable to collect server statistics from the first and second application servers (see Fig.1, #10 and col.4, lines 24-29: “collecting processor utilization information from the computer of the system”);

a second redirection processor located at a geographically disparate location from the first redirection processor, said second redirection processor operatively

connected to the first redirection processor (see col.6, lines 38-41: “establishes connections through communication links with other workload managers residing on different machines”); and

wherein the first redirection processor is operable to send information responsive to the server statistics to said second redirection processor (see col.4, lines 54-57: “extension would be to run the reallocation algorithm in just one transaction router and then distribute its new routing decisions to the remaining routers”).

As per **claim 20**, Georgiadis teaches a data information network for providing network processing associated with a plurality of users, the network comprising:

(a) at least first and second processors at a substantially same geographic location applying substantially the same application and operating at substantially the same time (see Fig.1; col.5, lines 46-51: “plurality of back end computers 12, 14 and 16, which share a common database”; and col.7, lines 3-5: “consisting or more than one computer”);

(b) a first load processor operatively connected to the first and second processors (see Fig.1, #10 and col.4, lines 24-29: “collecting processor utilization information from the computer of the system”);

(c) a second load processor located at a geographically disparate location from the first load processor (implicit: see col.6, lines 38-41: “establishes connections through communication links with other workload managers”), said second load processor operable to receive load information from the first load processor (see col.4, lines 54-57:

“extension would be to run the reallocation algorithm in just one transaction router and then distribute its new routing decisions to the remaining routers” and col.6, lines 38-41: “establishes connections through communication links with other workload managers residing on different machines”); and

(d) wherein the first load processor is operative to distribute requests from any one of the plurality of users received by the data information network to one of the first and second processors in response to said load information (see col.4, lines 24-34: “redistribute transaction types to equalize processor load” and “redistributing transaction types to computers to achieve a balanced load”).

As per **claim 28**, Georgiadis teaches a method of providing Internet or Intranet processing and stored data access associated with a plurality of users in a data information network, the method comprising the steps of:

(a) applying substantially the same application associated with a plurality of users in at least first and second processors, the first and second processors located at a substantially the same geographic location (see Fig.1; col.5, lines 46-51: “plurality of back end computers 12, 14 and 16, which share a common database”; and col.7, lines 3-5: “consisting or more than one computer”);

(b) operating the first and second processors at substantially the same time (implicit: see col.4, lines 33-34: “achieve a balanced load”);

(c) collecting load information from said first and second processors with a first load processor (see col.4, lines 24-29: "collecting processor utilization" and lines 41-43: "periodically reviews the workload situation");

(d) providing a second load processor located at a geographically disparate location from the first load processor (implicit: see col.6, lines 38-41: "establishes connections through communication links with other workload managers"), said second load processor operable to receive said load information from the first load processor (see col.4, lines 54-57: "extension would be to run the reallocation algorithm in just one transaction router and then distribute its new routing decisions to the remaining routers" and col.6, lines 38-41: "establishes connections through communication links with other workload managers residing on different machines"); and

(e) distributing requests from any one of the plurality of users received by the data information network to one of the first and second processors in response to said load information residing on said first and second load processors (see col.4, lines 24-34: "redistribute transaction types to equalize processor load" and "redistributing transaction types to computers to achieve a balanced load").

As per **claim 38**, Georgiadis teaches a network architecture for redirecting network traffic, the architecture comprising:

(a) a plurality of geographically disparate address processors in a plurality of network traffic paths (implicit: see col.6, lines 38-41: "establishes connections through communication links with other workload managers"), wherein each of said address

processors is operable to receive load information from any of said other address processors (see col.4, lines 54-57: "extension would be to run the reallocation algorithm in just one transaction router and then distribute its new routing decisions to the remaining routers" and col.6, lines 38-41: "establishes connections through communication links with other workload managers residing on different machines");

(b) a plurality of application servers operatively connected to the plurality of network traffic paths, the application servers applying, in part, substantially the same application (see Fig.1; col.5, lines 46-51: "plurality of back end computers 12, 14 and 16, which share a common database"; and col.7, lines 3-5: "consisting or more than one computer"); and

(c) wherein the address processors direct network traffic to particular application servers in response to said load information (see col.4, lines 24-34: "redistribute transaction types to equalize processor load" and "redistributing transaction types to computers to achieve a balanced load").

As per **claim 45**, Georgiadis further teaches a method for redirecting network traffic in a network, the method comprising the steps of:

(a) routing at least first and second network traffic datagrams through at least first and second address processors, respectively, in at least first and second network traffic paths, respectively, wherein said second address processor is operable to receive load information from said first address processor (see col.4, lines 54-57: "extension would be to run the reallocation algorithm in just one transaction router and then distribute its

new routing decisions to the remaining routers” and col.6, lines 38-41: “establishes connections through communication links with other workload managers residing on different machines”) and wherein said second address processor is located at a geographically disparate location from said first address processor (implicit: see col.6, lines 38-41: “establishes connections through communication links with other workload managers”);

(b) applying, in part, substantially the same application with at least first and second application servers, each of the first and second application servers operatively connected to the first and second network traffic paths (see Fig.1; col.5, lines 46-51: “plurality of back end computers 12, 14 and 16, which share a common database”; and col.7, lines 3-5: “consisting of more than one computer”); and

(c) directing with the first and second address processors the first and second network traffic datagrams to one of the first and second application servers in response to said load information (see col.4, lines 24-34: “redistribute transaction types to equalize processor load” and “redistributing transaction types to computers to achieve a balanced load”).

DEPENDENT:

As per **claims 3 and 13**, which respectively depend on claims 1 and 11, Georgiadis further teaches wherein the step (b) comprises sending at least a first **variable** that is a function of the server statistics (see col.4, lines 54-57 and col.6, lines 38-41).

As per **claims 4 and 14**, which respectively depend on claims 3 and 13, Georgiadis further teaches wherein the step (b) comprises applying **weighting factors** to the server statistics (see col.4, line 66-col.5, line 1).

As per **claims 21 and 29**, which respectively depend on claims 20 and 28, Georgiadis teaches of further comprising at least two data storage devices storing mirrored data associated with the application, said at least two data storage devices operatively connected to each of said first and second processors (see Fig.1).

As per **claims 22 and 30**, which respectively depend on claims 20 and 28, Georgiadis further teaches wherein said second load processor is operative at a same time as and in parallel to said first load processor (implicit: see col.4, lines 33-34: "achieve a balanced load").

As per **claims 23 and 31**, which respectively depend on claims 20 and 28, Georgiadis further teaches wherein the load information comprises information from the first and second processors selected from the group of: availability, processor usage, data storage usage and combinations thereof (see col.4, lines 24-29).

As per **claims 25 and 33**, which respectively depend on claims 20 and 28, Georgiadis further teaches wherein the first and second load processors are operable to apply weighting factors to said load information; and wherein said distribution is responsive, in part, to said weighting factors (see col.4, line 66-col.5, line 1).

As per **claim 26**, which depends on claim 20, Georgiadis further teaches wherein the first load processor is further operative to provide said load information to at least a third load processor (see col.4, lines 54-57: "distribute... to the remaining routers"), the

third load processor associated with a network access point (see Fig.1, #10: "Front End Computer").

As per **claim 36**, which depends on claim 28, Georgiadis further teaches wherein one of said requests corresponds to a source address, the method further comprising the step (f) of distributing subsequent requests corresponding to the source address to the same of the first and second processors as the one of said requests (see col.5, lines 52-56).

As per **claim 39**, which depends on claim 38, Georgiadis further teaches wherein the address processors are associated with network access points (see Fig.1, #10: "Front End Computer").

As per **claims 40 and 47**, which respectively depend on claims 38 and 45, Georgiadis further teaches wherein the plurality of application servers comprise geographically disparate application servers (implicit: see Fig.1 and col.4, lines 54-57: "distribute... to the remaining routers").

As per **claims 42 and 49**, which respectively depend on claims 38 and 45, Georgiadis further teaches wherein the load information comprises a plurality of variables, each variable associated with one of the plurality of application servers (see col.4, lines 54-57 and col.6, lines 38-41).

As per **claim 46**, which depends on claim 45, Georgiadis further teaches wherein the step (a) comprises routing the at least first and second network traffic datagrams through the at least first and second address processors (see col.5, lines 52-56),

respectively, associated with first and second network access points (subjective), respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5-10, 12, 15-19, 24, 27, 32, 34-35, 37, 41, 43-44, 48, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georgiadis et al (US 5,283,897 A) in view of Fletcher et al. (US 6,108,782 A).

As per ***claims 2 and 12***, which respectively depend on claims 1 and 11, although Georgiadis further teach wherein the step (a) comprises collecting information associated with data selected from the group of: **availability, processor usage, data storage usage** and combinations thereof (see col.4, lines 24-29), Georgiadis does not explicitly teach that the information is a **Simple Network Management Protocol (SNMP) Management Information Base (MIB)**.

Fletcher teaches that the information is a Simple Network Management Protocol (SNMP) Management Information Base (MIB) (see col.10, lines 7-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the method and system of

Georgiadis by implementing a Simple Network Management Protocol (SNMP) Management Information Base (MIB) within the method and system for sharing load distribution data between at least first and second redirection processors because Fletcher teaches that SNMP is a common protocol for managing network infrastructure over the network.

As per **claim 5**, which depends on claim 1, although Georgiadis teaches of further comprising the step (c) of directing traffic with the first redirection processor (see col.5, lines 66-68), Georgiadis does not explicitly teach that the traffic is Internet Protocol (IP) traffic.

Fletcher teaches of Internet Protocol (IP) traffic (see col.20, lines 18-21).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the method and system of Georgiadis by implementing Internet Protocol (IP) traffic within the method and system for sharing load distribution data between at least first and second redirection processors because IP is a known protocol for routing data.

As per **claim 6**, which depends on claim 1, although Georgiadis teaches of further comprising the step (c) of directing traffic with the second redirection processor (implicit: see col.4, lines 54-57), the second redirection processor associated with a **network access point** (see Fig.1, #10: "Front End Computer"), Georgiadis does not explicitly teach that the traffic is Internet Protocol (IP) traffic.

Fletcher teaches of Internet Protocol (IP) traffic (see col.20, lines 18-21 and see claim 5 rejection above for motivation).

As per **claims 7 and 16**, which respectively depend on claims 1 and 11, Georgiadis does not explicitly teach wherein the step (b) comprises sending the information in response to a query from the second redirection processor.

Fletcher teaches wherein the step (b) comprises sending the information in response to a query from the second redirection processor (implicit: see col.3, lines 47-51).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the method and system of Georgiadis by implementing sending the information in response to a query from the second redirection processor within the method and system for sharing load distribution data between at least first and second redirection processors because whether the information is send periodically or in response to a request is subjective and does not functionally distinguish the communication from the first redirection processor to the second redirection processor in terms of patentability.

As per **claims 8 and 17**, which respectively depend on claims 7 and 16, Georgiadis further teaches wherein the step (b) comprises sending the information to the second redirection processor (see claim 1 and claim 11 rejections above), the second redirection processor assigned to receive the information from the first redirection processor (inherent).

As per **claims 9 and 18**, which respectively depend on claims 1 and 11, Georgiadis does not explicitly teach wherein the step (b) comprises broadcasting the

information in a Transmission Control Protocol (TCP) format to a plurality of redirection processors, including the second redirection processor.

Fletcher teaches wherein the step (b) comprises broadcasting the information in a Transmission Control Protocol (TCP) format (see col.4, lines 66-67) to a plurality of redirection processors, including the second redirection processor (see col.10, lines 6-6).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the method and system of Georgiadis by implementing broadcasting the information in a Transmission Control Protocol (TCP) format to a plurality of redirection processors, including the second redirection processor within the method and system for sharing load distribution data between at least first and second redirection processors because Fletcher teaches of eliminating single point of failure by substituting for each other (see col.7, lines 35-38) or assumes the duties by another when one is defective or off-line (see col.9, lines 54-59). Therefore, to ensure such failover means, one would broadcast to a plurality of redirection processors to ensure that the traffic gets to its destination.

As per **claims 10 and 19**, which respectively depend on claims 1 and 11, Georgiadis does not explicitly teach wherein the step (b) comprises broadcasting the information in a User Datagram Protocol (UDP) format to a plurality of redirection processors, including the second redirection processor.

Fletcher teaches wherein the step (b) comprises broadcasting the information in a User Datagram Protocol (UDP) format (see col.4, lines 66-67 and col.10, lines 12-16)

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to a plurality of redirection processors, including the second redirection processor (see col.10, lines 6-6 and claims 9 and 18 rejection above for motivation).

As per **claim 15**, which depends on claim 11, Georgiadis and Fletcher further teach wherein the first and second redirection processors are operable to direct Internet Protocol (IP) traffic, the second redirection processor associated with a network access point (see claim 5 and claim 6 rejections above).

As per **claims 24 and 32**, which respectively depend on claims 23 and 31, Georgiadis and Fletcher further teach wherein the load information comprises Management Information Base (MIB) data (see claim 2 and 12 rejection above).

As per **claim 27**, which depends on claim 26, Georgiadis and Fletcher further teach wherein the load information is a variable provided in response to a means selected from the group of: means for sending said load information in a Transmission Control Protocol format, means for sending said load information in a User Datagram Protocol format, and combinations thereof (see claims 9 and 18 and claims 10 and 19 rejections above).

As per **claim 34**, which depends on claim 28, Georgiadis and Fletcher teach of further comprising the step (f) of providing said load information to at least third and fourth load processors (see Georgiadis: col.4, lines 54-57: "distribute... to the remaining routers") in IP traffic data paths (see claim 5 and claim 6 rejections above), the third and fourth load processors associated with first and second network points (subjective), respectively.

As per **claim 35**, which depends on claim 34, Georgiadis and Fletcher further teach wherein the step (f) comprises providing the load information as a variable with a method selected from the group of:

- (e1) querying an assigned neighbor load processor;
- (e2) broadcasting the variable in a Transmission Control Protocol format;
- (e3) broadcasting the variable in a User Datagram Protocol format; and
- (e4) combinations thereof (see claims 9 and 18 and claims 10 and 19 rejections above).

As per **claim 37**, which depends on claim 36, Georgiadis and Fletcher further teach wherein the step (f) comprises directing subsequent IP requests in response to the application (see claim 5 rejection above).

As per **claims 41 and 48**, which respectively depend on claims 40 and 47, Georgiadis and Fletcher teach of further comprising an additional address processor associated with each geographical disparate application server (see Georgiadis: col.4, lines 54-57: "distribute... to the remaining routers");

wherein each geographical disparate application server comprises a plurality of additional application servers applying, in part, the substantially the same application (see Georgiadis: Fig.1); and

wherein the additional address processors direct network IP traffic (see claim 5 and claim 6 rejections above) datagram directed to the geographical disparate application servers to particular additional application servers in response to additional application server load information (see col.4, lines 24-34).

As per **claims 43 and 51**, which respectively depend on claims 41 and 48, Georgiadis and Fletcher further teach wherein the additional application server load information comprises Management Information Base (MIB) data (see claims 2 and 12 rejection above).

As per **claims 44 and 53**, which respectively depend on claims 41 and 48, Georgiadis and Fletcher further teach wherein the load information is shared between plurality of address processors and the plurality of additional address processors by a means selected from the group of: means for querying an assigned neighbor address processor, means for querying an assigned additional address processor, means for broadcasting load information in a Transmission Control Protocol format, means for broadcasting load information in a User Datagram Protocol format, and combinations thereof (see claims 9 and 18 and claims 10 and 19 rejections above).

As per **claims 50, and 52**, which respectively depend on claims 49 and 51, Georgiadis and Fletcher further teach wherein the MIB comprises data (first and second variables) selected from the group of: a data rate, availability, round trip time information, and combinations thereof (see claim 2 and 12 rejection above).

Conclusion

5. Claims 1-53 have been rejected and remain pending.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Won

A handwritten signature in black ink, appearing to read 'Michael Won', with a stylized, flowing script.

August 29, 2006